Origins 41

The Journal of The Biblical Creation Society **£3.00**

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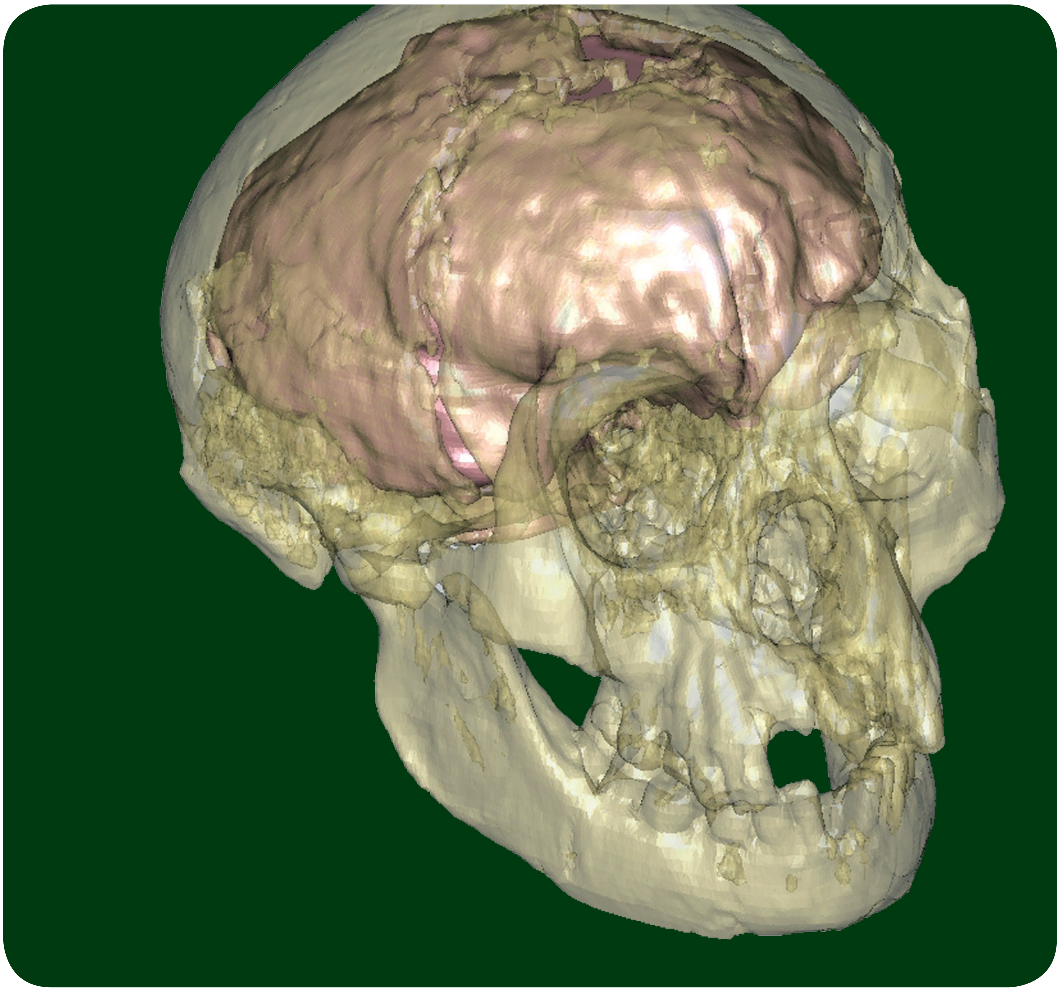

Editorial: Abandoning atheism

Judging by media interest, the concept of Intelligent Design (ID) is having a major impact in the USA. Several popular science journals (including *National Geographic* and *Discover*) have carried lengthy articles defending Darwinian evolution. Many peer-reviewed journals (including *Nature* and *Science*) have carried reactions to ID. In June 2005 there was controversy over the screening of the ID-inspired film, *The Privileged Planet: The Search for Purpose in the Universe*, at the Smithsonian Institution.

Here in the UK, the ID concept also seems to be attracting media attention. A noteworthy event occurred towards the end of 2004. The leading philosopher Professor Antony Flew declared that he has been so impressed with the evidences of design emerging from science that he has renounced atheism. This testimony is in the Winter 2004 issue of *Philosophia Christi*, the journal of the Evangelical Philosophical Society.[1]

Flew writes, "I think the argument to Intelligent Design is enormously stronger than it was when I first met it." And again, "It now seems to me that the findings of more than fifty years of DNA research have provided materials for a new and enormously powerful argument to design."

If these evidences are worthy of consideration by a professor of philosophy, why should it be deemed unacceptable and unscientific for students to consider this same evidence?

In our view, the principle of teaching the *contemporary* controversy on design, rather than the arguments on this subject fossilised in Darwin's *On the Origin of Species*, can only be a good thing for students and educators alike.

Students deserve better than to be exposed only to Darwin's outdated critique of design. There is no scientific case for shielding them from current controversies.

David Tyler and Paul Garner

> "I think the argument to Intelligent Design is enormously stronger than it was when I first met it."

Note

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1. See www.biola.edu/antonyflew

Corrections to *Origins* 40

Despite our best efforts at proof-reading and fact-checking, we find that human errors still creep in! Please accept our apologies for the following mistakes in our last issue.

1. We omitted to include the affiliations of three of our guest authors:

- **Professor Stuart Burgess** is Head of the Department of Mechanical Engineering at the University of Bristol.
- **Dr Alan Gillen** has an MS in zoology (Ohio State University) and an EdD in science education (University of Houston, Texas). He currently teaches at Liberty University in Virginia.
- **Frank Sherwin** has an MA in zoology from the University of Northern Colorado, where he studied under one of the foremost parasitologists in America. His research has been published in the *Journal of Parasitology*. He is now a staff member of the Institute for Creation Research, San Diego.

2. There was a typographical error in Stuart Burgess' article, 'Beauty in the blackbird's song'. In column 2 of page 3, under the heading of 'Matched countersinging', the text refers to "a song which compliments [*sic*] the song of a neighbour". This should have read "complements".

3. There was also an inadvertent error on the part of the editor in Alan Gillen and Frank Sherwin's article, 'The immune system: designed to interact with microbes'. The first line on page 8 should say "staphylococcal population" rather than "streptococcal population". *Staphylococcus* inhabits the skin, not *Streptococcus*.

4. Another error appears in Paul Garner's article, 'The Grand Canyon Adventure – Part One'. In the first column on page 11, "mnemonic" is misspelled as "pnemonic".

5. Finally, we turn to our list of Vice-Presidents on page 25. Revd Stuart Olyott has now left the Evangelical Theological College of Wales and is currently an Associate of the Evangelical Movement of Wales.

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Jonathan Swingler

On 18th May 1980, Mt St Helens, a volcano in Washington State, USA, made headlines when it erupted with explosive violence. But it also taught us valuable lessons about the rapid formation of rock layers and the catastrophic carving of canyons. Jonathan Swingler gives us an account of his recent visit to Mt St Helens, and the 'Seven Wonders Museum' which provides a creationist perspective on the eruption and its aftermath.

08 **The amazing shrinking humans from Flores**

David J. Tyler

The world of anthropology was rocked last year by the astonishing discovery of diminutive fossil humans on an Indonesian island. Popularly known as 'hobbits', after the little people of Tolkien's *Lord of the Rings* trilogy, opinion has been sharply divided about their place in human history. Some have even suggested that these tiny humans strike at the Christian teaching that man is made uniquely in the image of God. However, in this article, David Tyler suggests a way to understand the 'hobbits' from within the biblical worldview.

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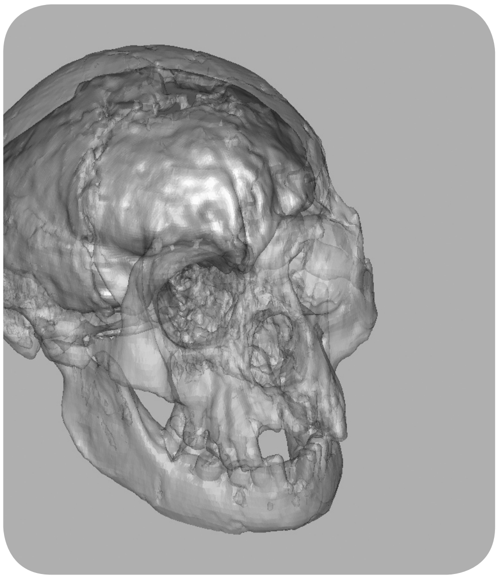
Paul Garner

Are the rocks of Grand Canyon really hundreds of millions of years old? Does radioisotope dating give us the true age of these rock layers? Is the principle of uniformity – 'the present is the key to the past' – really valid? Join Paul Garner as he continues his voyage down the Colorado River with the Institute for Creation Research looking for answers.



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Sheena Tyler

This year sees the 60th anniversary of the end of the Second World War, an occasion marked by much reflection in the media and elsewhere. But in all the analysis, the ideological roots of the war have hardly been discussed. In this fascinating article, Sheena Tyler explores the Darwinian roots of the German national socialist movement, reveals the amazing way in which God intervened to defeat these evil forces, and draws a number of important lessons for the ongoing battle for truth and justice in our own society.

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The Foundations of our Faith. 5:

The Doctrine of Man – Part Two

J. H. John Peet

We have seen in the previous part something of the place of man in God's plan, his specialness in the eyes of the Creator (Psalm 8:4). What are the practical implications of this?

Clearly man is precious in God's sight and so must be in ours. In particular, **his life is precious**. We are not to do anything that puts his life in danger. Genesis 9:6 makes this plain and links it directly to mankind being in the image of God. But notice too its context: it is not talking about some godly man such as Noah, but to man in his wickedness; the image is still there though it is marred. This affects our attitude to abortion, ethnic cleansing, euthanasia – and even the way we drive our cars!

But James 3:9 takes this further: **his reputation is precious**. We must control the use of our tongues when we speak of others. Our Lord compares this to murder (Matthew 5:21-26). Anything that denigrates our fellow man is against God's law, because, James says, we "have been made in God's likeness." To slander him is banned. To describe him as anything less than human is contrary to God's will: we are not the cousins of the ape, we are in the likeness of God. We should not talk of someone who is in a coma as a vegetable. We should not insult them by describing them like an animal.

Then, of course, his **soul is precious**. God has made His love plain (John 3:16). We too should share His concern for man's salvation if we believe the biblical doctrine of creation.

One of the first blessings bestowed on man was marriage. To God **marriage is beautiful**. This is not a social convenience but a God-given blessing. It should not be entered into lightly nor treated lightly. Christ refers back to this creation ordinance to say that marriage should be monogamous, heterosexual and for life (Mark 10:6-9). Christians should hesitate to treat marriage as a joke in which it (or their partner) is denigrated. We should be encouraging marriage in its biblical fullness. When we belittle marriage, as in our British society today, the society itself collapses. I would encourage creationists to read Matthew Henry's lovely commentary on the first marriage: "[The woman] was not made out of his head to rule over him, nor out of his feet to be trampled upon by him, but out of his side to be equal with him, under his arm to be protected, and near to his heart to be beloved." Paul makes it clear that our married relationship is to be like that between Christ and His Church.

But there is another matter arising here that is so contrary to modern society: **woman is special**. As Henry rightly points out, the woman is equal to man and not inferior. She too was made in the image of God (Genesis 1:27). Man is to represent God in his marriage as the one with responsibility and accountability. He also shows the character of God in his self-sacrificial love (Ephesians 5:25). Paul continues in that reference to say that man's responsibility is to beautify his wife (vv. 25-28): definitely not to 'put her down'. However, the Scriptures go further. One of the most misused verses is that of Genesis 2:18 which has been interpreted by some to imply that she is a slave to man's whims. It actually speaks of her as his "helper". This word is *ezer* in the Hebrew and is used of God Himself (e.g. Psalm 70:5). The woman is to represent God in her marriage to the man. Man may be the head of the family, but the woman is the crown upon his head (Proverbs 12:4).

The creation ordinance teaches us that **work and rest are necessary**. Genesis 1 is about God at work; so He is setting us an example in that. But God also rested from His work of creation for the seventh day. Not that He was tired, of course, but to establish a pattern for us. He knew our physical needs would require it. This is what He says in His Ten Commandments (Exodus 20:8-11). The Lord Jesus also underlines it (Mark 2:27). We must work (see Ephesians 4:28) and we must rest. Note that the command is to work as well as rest!

Finally, this creation doctrine of man has **moral implications**. We are not what we are as a result of evolutionary struggles; there is no excuse here for bad behaviour. We must seek to do that which is good, summed up so magnificently in Philippians 4:8-9. Paul again makes the point in a different way: we are to display the fruit of the Spirit, "against such there is no law" (Galatians 5:22-23). What a contrast to the preceding list of the works of the flesh. Evolutionists often try to excuse the latter as a part of our genetic make-up. The Bible says it is sin, rebellion against God's laws. An interesting area of debate for the evolutionists is the existence of **altruism**. It does not make evolutionary sense! But, it is inevitable from creation doctrine, for we are made in the image of God.

What then do we make of man? Compare Huxley's despair – "I know of no study which is so utterly saddening as that of the evolution of humanity...He is a brute, only more intelligent than other brutes, a blind prey to impulses which as often as not lead him to destruction...and fill his life with barren toil and battle" – with David's wonder – "How special man must be that God should be mindful of him and the son of man that He visits him" (Psalm 8:4; my paraphrase)!

A Visit to Mt St Helens

Jonathan Swingler

If you happen to be on the north-western seaboard of the United States, a place worth visiting is the Mount St Helens National Volcanic Monument. I was in Seattle on business last September and decided to have a look around this volcano that creationists rave about. As a creationist myself, and a physicist, I wanted to see the evidence with my own eyes and see what all the fuss is about. And now I had my opportunity.

Since September 2004, Mt St Helens has started to stir once more with earthquakes, steam and ash emissions. Nothing to do with my visit, I assure you! But twenty-five years ago it caused great devastation (see Inset Box and Figure 1). Will it be as destructive once more? We can only watch and wait.

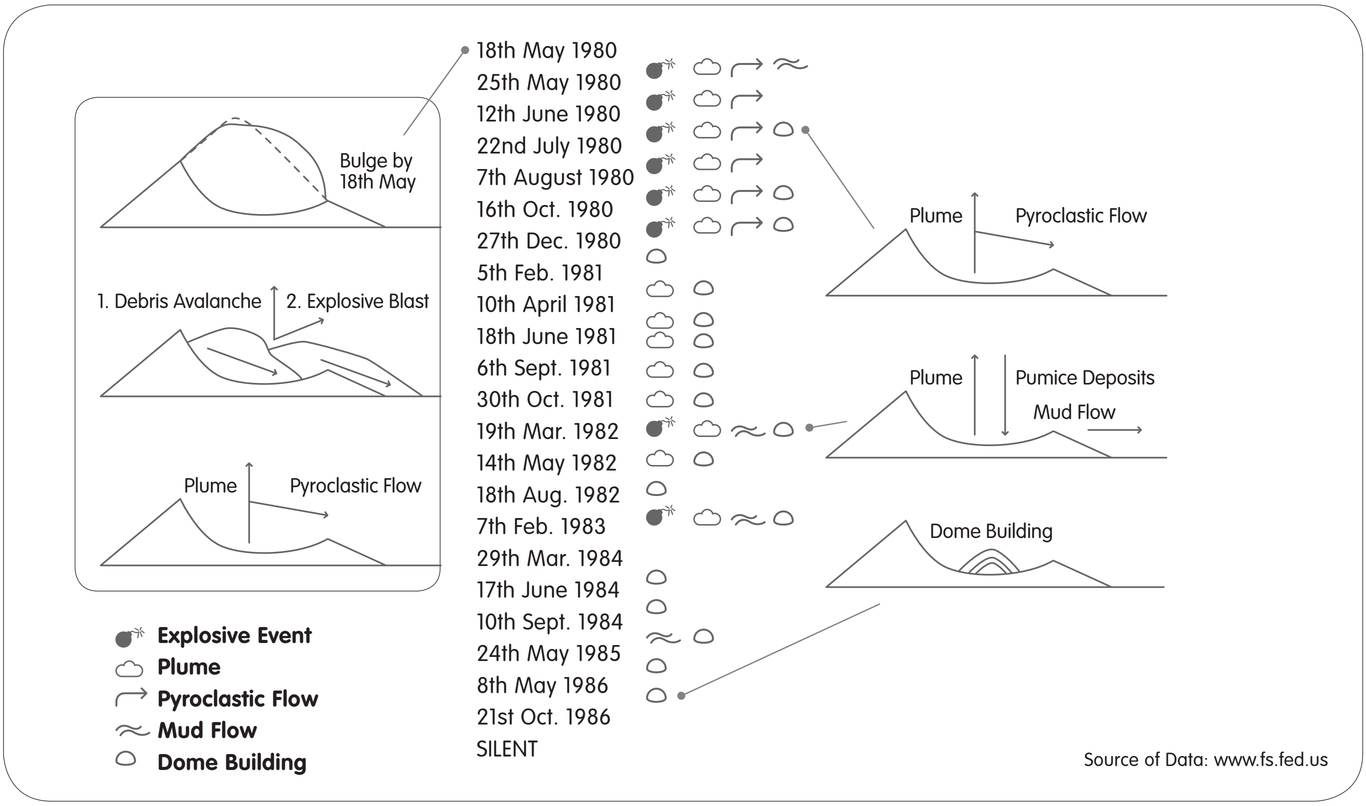
INSET BOX: WHAT HAPPENED 25 YEARS AGO?

Twenty five years ago, at 8.32 am (Pacific Daylight Time) on Sunday 18th May 1980, Mount St Helens erupted after a bulge had formed on the northern side of the mountain over the preceding weeks. The northern side collapsed into a massive rock debris avalanche due to an earthquake measuring 5.1 on the Richter Scale. An explosive blast of steam and debris occurred, followed by pyroclastic flows streaming northwards at high velocity, flattening nearly 230 square miles of forest. At the same time a mushroom-shaped plume of ash rose upwards and drifted downwind depositing pumice ash on east Washington State. The eruption lasted for nine hours, releasing an estimated 440 megatons of blast energy, equivalent to 30,000 Hiroshima atomic bombs going off. Vast amounts of energy in this and subsequent eruptions was available to drive erosion and deposition processes, giving us the opportunity to observe in detail these catastrophic effects on the landscape. Figure 1 illustrates the eruptions until the volcano fell silent in 1986.

The five visitor centres

If you were a Washington State official in the 1980s you might be dismayed to have an active volcano in your locality. However, the possibilities slowly became apparent for scientific research, education and recreation. In October 1982 the 'Mount St Helens National Volcanic Monument' was designated by the US Government covering 110,000 acres. The public would be restricted to particular roads and areas so that scientific research could be conducted in other areas. By 1997 State Route 504 was completed which leads people through the devastated area up to a visitor centre at Johnston Ridge looking directly into the volcano's crater.

Five world-class visitor centres have been built along this route (Figure 2) each exhibiting its own particular focus. The 'Mt St Helens Visitor Center' is the first that you encounter travelling east on SR-504 after exiting Interstate 5. The focus of this centre is the human history of the area, before, during and after the 1980 eruption. The 'Hoffstadt Bluffs Visitor Center', the second centre, about 20 miles after Silverlake, focuses on the recovery of the Toutle River Valley. If you are interested in forest management then the 'Forest Learning Center' is for you, the third



Source of Data: www.fs.fed.us

Figure 1. The history of eruptions at Mt St Helens. *Courtesy of Jonathan Swingler.*

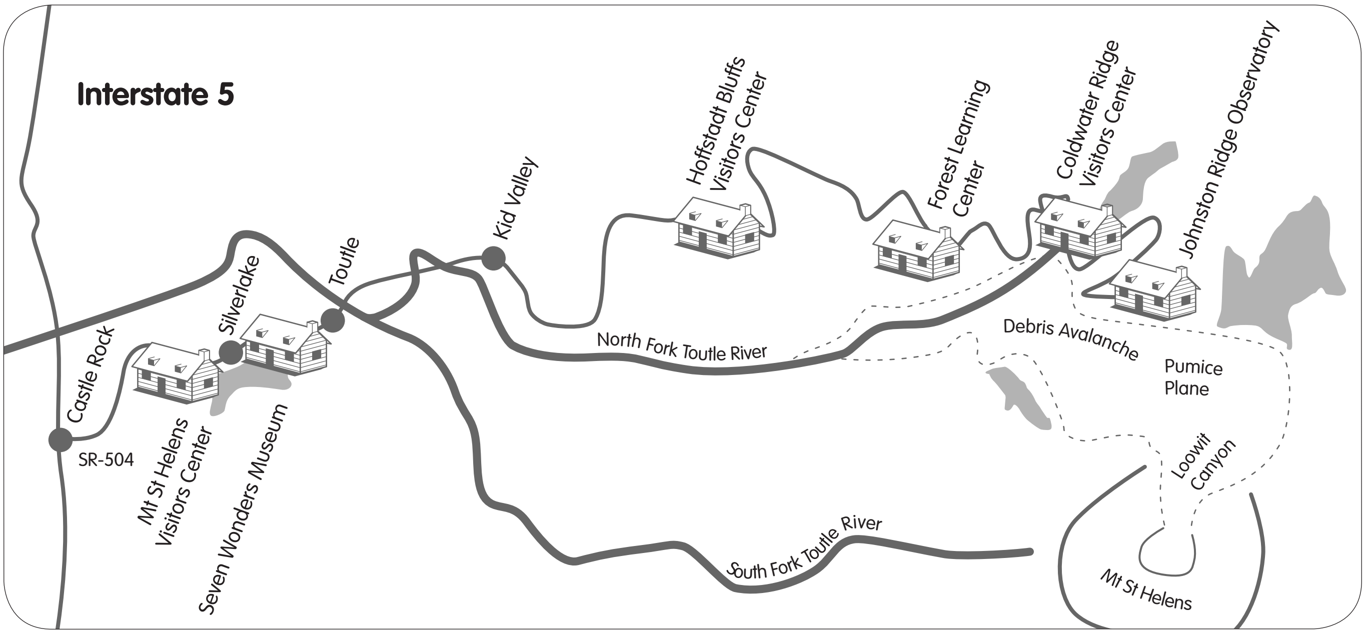


Figure 2. Map of the area showing the location of the five visitor centres and the Seven Wonders Museum. *Courtesy of Jonathan Swingler.*

1. Mountain rearranged beyond recognition in nine hours
2. Canyons formed in five months
3. Badlands formed in five days
4. Layered strata formed in three hours
5. River system formed in nine hours
6. Sinking logs look like many aged forests in just ten years
7. A new model for quicker coal formation

Figure 3. The 'Seven Wonders' at Mt St Helens. *Courtesy of Jonathan Swingler.*

centre on our route. This focuses on the devastation and recovery of the forest from Weyerhaeuser's perspective, a forest products company and largest land owner in the area. Perhaps ecology is your thing! Then the 'Coldwater Ridge Visitor Centre' is for you. This explores how plants and animals are returning and thriving at Mt St Helens. The final destination on SR-504 is the 'Johnston Ridge Observatory' looking directly into the crater just $5^{1}/_{2}$ miles away. This centre obviously has geology as its focus with spectacular views of the volcano.

Each centre has its own particular flavour, but all put forward an evolutionary perspective of origins. I found that interesting. It is as if no-one dare show any dissension from the party line! But wait, one centre has sprung up that is bold enough to point to facts that don't fit this evolutionary ideology.

Visiting the '7 Wonders Museum'

Lloyd and Doris Anderson were looking for a retirement ministry in 1998 when they felt called of God to establish the 'Mt St Helens Creation Information Center'. This was based in a building behind their home on SR-504 and now has grown into the '7 Wonders Museum'. The museum is small but highlights seven big issues that raise serious questions about the evolutionary approach. The museum presents geological phenomena observed at Mt St Helens as listed in Figure 3, two of which really grabbed my attention:

- **Canyons formed in five months.** You could be forgiven for believing that canyons and valleys take considerable amounts of time to form if you assume that a little river steadily erodes material over thousands of years. However, many canyons have been formed in the surrounding landscape at Mt St Helens in the months after the first eruption (Figure 4). Two canyons of particular significance were eroded by mud and pyroclastic flows cutting through solid igneous rock. Within five months Step Canyon, up to 700 feet deep, and Loowit Canyon, up to 100 feet deep, were formed.
- **Layered strata formed in three hours.** You could be forgiven for believing that stratified rock takes considerable amounts of time to form if you assume that particles suspended in fluids take many thousands of years to deposit in layers. However, the Mt St Helens event shows that deposition takes a matter of hours. One such stratified deposit of many feet thick was put down following the third explosive eruption between 9 pm and 12 midnight on 12th June 1980. Multiple pyroclastic flows were projected out of the crater and down the northern slope, each covering the valley below with a layer. Within three hours 25 feet of stratified deposits were formed (Figure 5).

Conclusion

So, what is all the fuss about? Well, there is compelling evidence that we don't need long time scales to produce the features we observe on our planet. As a physicist, I see that it is a matter of energy: if we assume that these features require low-power erosion or deposition processes to form, then we need vast amounts of time to get the results that we see on our planet. However, Mt St Helens demonstrates in front of our very eyes that high-power erosion and deposition processes do occur in a short amount of time producing the very features we observe. I see no necessity to believe in an old earth. An earth of less than 10,000 years, consistent with a straightforward reading of Genesis, which has undergone such catastrophic events, is intellectually credible.

This summer approaches, the local officials at Mt St Helens are happy to open the many facilities in the area for the new season – as long as the volcano "continues its quiet dome-building eruptions." So if you have the opportunity, have a look. Pop into the '7 Wonders Museum'; I found Lloyd and Doris very hospitable and helpful.

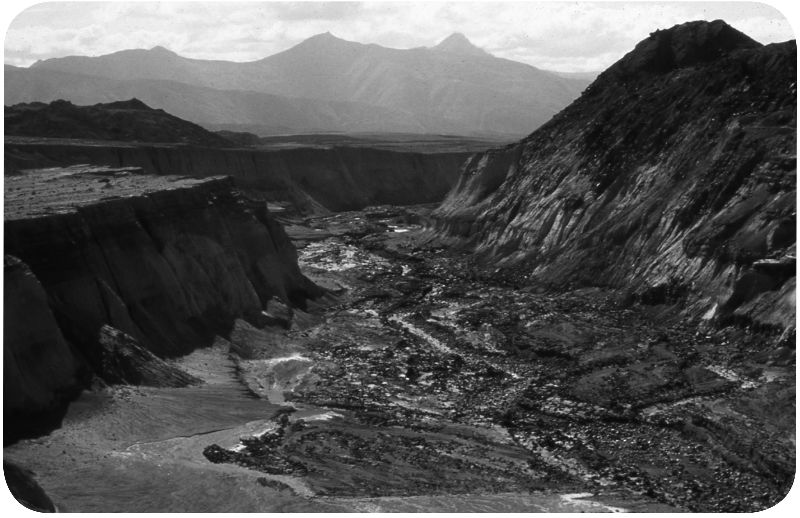


Figure 4. Engineers' Canyon looking west. This canyon was eroded through the pyroclastic and landslide deposits formed on 18th May 1980. The cliff on the left was almost 100 feet high when this photograph was taken by Dr Steven Austin in August 1984. The small stream did not cause the canyon; the canyon causes the stream to be there.
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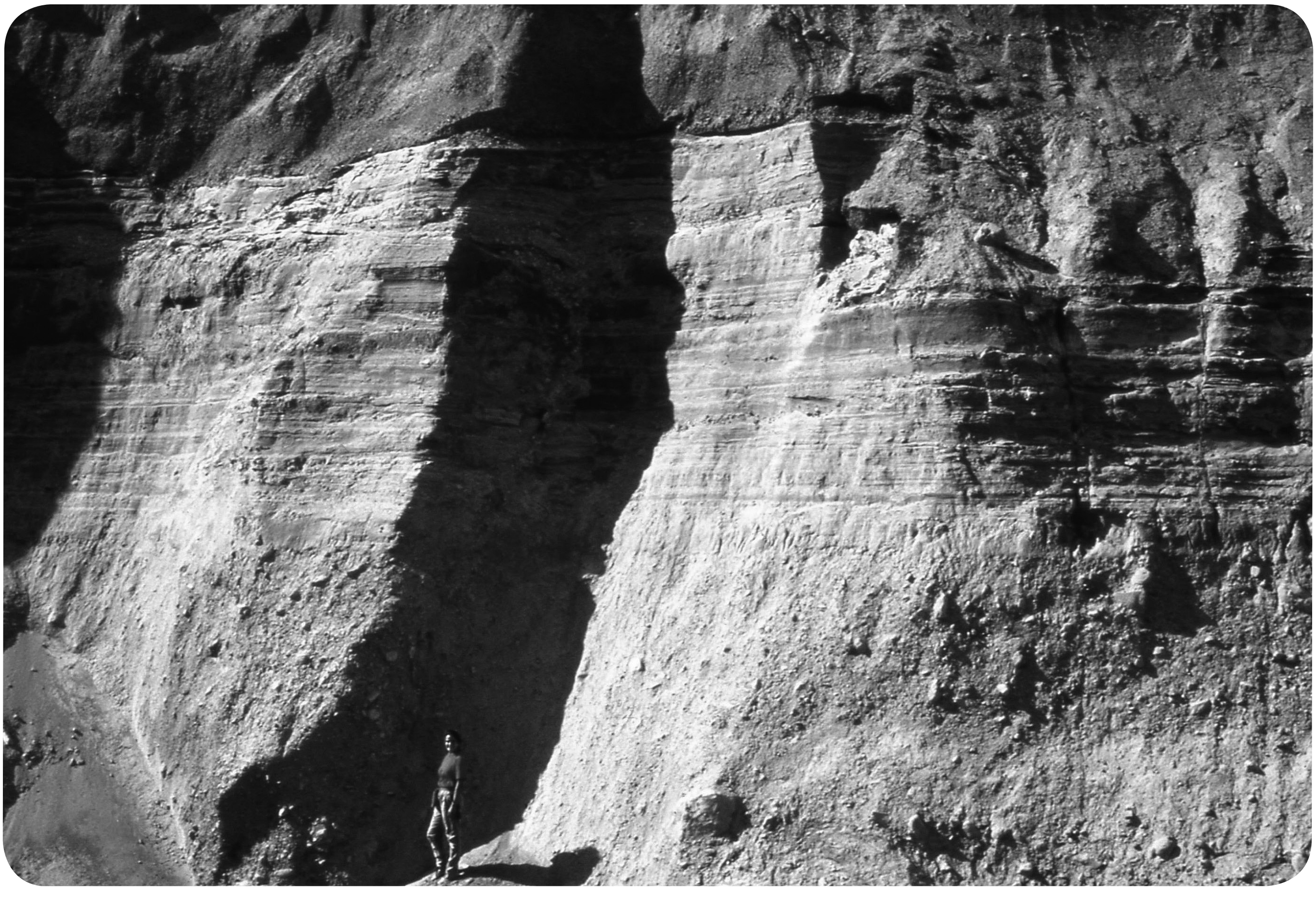

Figure 5. Rapidly formed strata on the North Fork of the Toutle River southwest of Spirit Lake. The lower third of the photo shows the uppermost deposits from the afternoon of 18th May 1980. The middle third shows the 25-foot-thick layered pyroclastic flow deposit formed during the evening hours of 12th June 1980. The dark-coloured and massive mud flow deposit of 19th March 1982 caps the cliff.
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The Amazing Shrinking Humans from Flores

David J. Tyler

This article considers the discovery of the bones of little people on the island of Flores. Popularly known as 'hobbits', they have caught the imagination of the world. That they ever existed is both surprising and instructive.

We have grown accustomed to hominid fossils being announced with a fanfare of publicity, hailed as bringing a dramatic new understanding of the evolution of our species. However, with the passing of time, these finds seem not so important after all, and seasoned observers realise that there are other agendas at work driving the media interest. Nevertheless, on 28th October 2004, something genuinely novel appeared in the pages of *Nature* (Brown *et al*, 2004) and hit the front pages of newspapers around the world. Professor Chris Stringer commented (2004): "When a new fossil is found it is often claimed that it will rewrite the anthropological textbooks. But in the case of an astonishing new discovery from Indonesia, this claim is fully justified". It was a diminutive skeleton that appeared very human-like but with a brain size comparable to the smallest known australopithecine. This was big news because everyone – both creationists and evolutionists – had previously considered human brain sizes to be significantly larger than any of the apes.

Enter *Homo floresiensis*

The main skeleton is known as LB1, found during an archaeological excavation in a cave at Liang Bua on the island of Flores. The bones are not fossilised and are in a very fragile condition. Dating procedures have assigned an age in the range 38,000-18,000 years before the present (Morwood *et al*, 2004). They are therefore 'young' from the perspective of the hominid evolutionary story, and contemporaneous with modern man, *Homo sapiens*. The cranium and mandible of LB1 are well preserved, and there are numerous other bones to study. There are thought to be eight separate individuals that have been discovered, but excavations have looked at only a small area to date (Wong, 2004). The bones are all small, but the most startling discovery is that the size of the human-like brain is only about 400 cm^3.

For a human to have such a small brain was totally unexpected. Peter Brown, co-author and palaeoanthropologist at the University of New England in Armidale, Australia, said: "My jaw dropped to my knees" (Dalton, 2004). Chris Stringer (2004), of the Natural History Museum in London, wrote: "When I then heard rumours about the discovery of an early human skeleton in a cave on Flores, I was ready to be surprised. However, nothing could have prepared me for how big (or small) that surprise would be". Leslie Aiello, of University College London, is reported as saying, "If they are correct, this really is a stunner" (Balter, 2005). Fred Spoor, also of University College London, commented that the new study "upsets one of our main concepts of human evolution, that our brain size has to increase for humans to become clever" (Balter, 2005).

The archaeological research has identified an association of hominid bones with the bones of young dwarfed *Stegodon*, a Komodo dragon, very large rodents, bats, birds and fish. Some of these bones are charred, suggesting that they had been cooked in a fire. There are stone tools and cut marks on the bones. The ancestors of these hominids must have been capable of building boats and setting out to cross the straits between islands along the Malay Archipelago. Since there are no evidences of alternative agents to perform these advanced tasks, the researchers have made a design inference and concluded that these little hominids were responsible. This suggests that they were intelligent, resourceful and capable of communicating using language. Their discoverers have dubbed them 'hobbits' and this nickname has been adopted widely.

Was LB1 a pathological microcephalic?

Soon after the main story broke, the Indonesian palaeoanthropologist Teuku Jacob was promoting his view that the bones were the remains of humans afflicted with microcephaly (Balter, 2004). Jacob was not a lone voice: two Australian specialists were advancing the same idea. This analysis did not gain much of a following. Stringer is reported as saying that, while sufferers of microcephaly have small brain cases, their jaws, chins and pelvis bones are of normal dimensions (Aglionby and McKie, 2004). "Everything that was found of *Homo floresiensis* was diminutive, so I don't see how you can substantiate the claim that these were modern little people with one particular condition. Also, the chin is that of a very primitive hominid, not a modern human. I firmly believe Brown has made a superb discovery on Flores".

Nevertheless, the microcephaly explanation was publicised positively by Wieland (2004). Many creationists came to interpret the data in this way so that *Homo floresiensis* provides an example of degeneration (rather than evolution). More recent work has, however, indicated that microcephaly is unlikely to be the key for understanding the hobbits. Morwood and Brown had the LB1 skull scanned at a hospital in Jakarta and collaborated in the analysis of data with Dean Falk and colleagues in the US. These researchers created an image of the endocast of the brain (which preserves its surface features). This was then compared with virtual endocasts obtained from the skulls of a modern human, a pygmy, a microcephalic modern human, a *Homo erectus* and a chimpanzee. Their findings (Falk *et al*, 2005) led them to discount microcephaly: "Unless a *H. erectus*-like endocast shape is characteristic of an unrecognised form of secondary microcephaly, we reject the hypothesis that LB1 was a pathological microcephalic." This qualification must be taken seriously, for we are not yet at the stage where secondary microcephaly can be ruled out completely. However, the onus now is on the advocates of this alternative view to present some data in support of their position.

Various characteristics of the endocast shape were identified that were considered significant. Balter

(2005) summarised the findings in this way:

> "They found that, relative to its overall size, the brain of *Homo floresiensis* has very large temporal lobes, brain regions associated in living people with understanding speech and hearing. Even more dramatically, the hominid has highly folded and convoluted frontal lobes, areas of the brain just under the forehead that are implicated in higher cognition…The most convoluted region is in the most forward-projecting part of the frontal lobe, called the frontal pole. Falk identifies this region as Brodmann's area 10, which is expanded in modern humans and is involved in undertaking initiatives and planning future actions – key components of higher cognition. This enlarged area suggests that the little Flores people may well have been capable of creating the stone tools that were found near them, which are more typical of those made by prehistoric modern humans than earlier hominids including *Homo erectus*."

Whilst the endocast of LB1 is considered uniquely different from all the other endocasts studied, it was closest to that of *Homo erectus*. Falk *et al* (2005) offer two scenarios for this. The first involves endemic dwarfing of *Homo erectus* ancestors and the second option is that *H. erectus* and *H. floresiensis* shared a diminutive unknown ancestor.

> "Although it is possible that *H. floresiensis* represented an endemic island dwarf that, over time, became subject to unusual allometric constraints, an alternative hypothesis is that *H. erectus* and *H. floresiensis* may have shared a common ancestor that was an unknown small-bodied and small-brained hominin."

The original paper by Brown *et al* (2004) considered several ways of explaining the small stature and brain size of LB1. They did not favour IGF-related postnatal growth retardation, nor pituitary dwarfism, nor primordial microcephalic dwarfism. Instead, insular dwarfing was suggested to be the "strongest candidate" for explaining the skeletal features. This is the phenomenon to which we now turn.

Island dwarfs

It is a curious fact that dwarf versions of many large animals are to be found on islands. The phenomenon is referred to as 'insular dwarfing' or 'endemic dwarfing'. Foster (1964) proposed an "island rule" in which mammals larger than a rabbit reduced their body size and smaller mammals increased their size. The most striking examples concern elephants. Roth (2001) summarises the situation thus: "The island forms may be half or even one-quarter the shoulder heights of their mainland ancestors, with body mass reduced to just one or a few percent of the original (Roth 1990)."

Roth considers three possible mechanisms: phenotypic plasticity (e.g. stunting), genetic drift and genetic divergence under the influence of natural selection. Regarding the first mechanism, he considers the size differences to be too great to be achieved by stunting alone. Regarding the second, the trajectory of change (of elephants) is consistently towards smaller size, so genetic drift can be rejected. Consequently, he infers "natural selection must have been involved".

Insular dwarfing has become one of the classic 'just-so stories' of Darwinism. Limited food resources on islands mean that the large herbivores present compete for very scarce resources and this leads to nutritional stunting. Natural selection favours those animals with a smaller body size and, with the passing of many generations, dwarf species emerge. The California Channel Islands (US) are thought to provide a clear example in the case of a mammoth (Dudley, 1999):

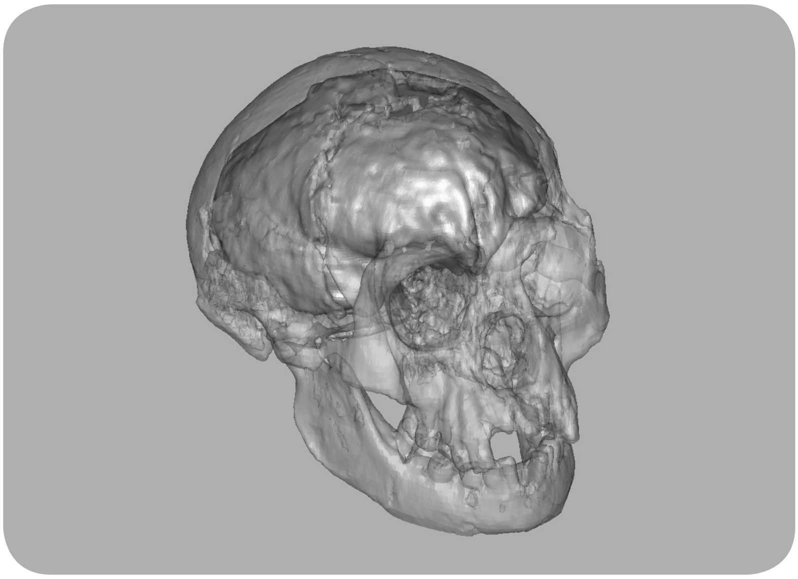
> "The extreme genetic dwarfing of *Mammuthus exilis* (adult body mass 200-500 kg versus 5,000-10,000 kg for ancestral *Mammuthus columbi* populations) implies that forage availability was a limiting resource and suggests that all accessible palatable vegetation would have been heavily utilized…nutritional stunting occurred concurrently with, and favoured selection for, the evolution of smaller body size in this population".

The hominids of Flores were omnivores, not herbivores, because we know they hunted and ate animals. Could insular dwarfing be relevant to their case? Brown *et al* (2004) consider that the answer is 'yes'.

> "Explanations of the island rule have primarily focused on resource availability, reduced levels of interspecific competition within relatively impoverished faunal communities and absence of predators. It has been argued that, in the absence of agriculture, tropical rainforests offer a very limited supply of calories for hominins. Under these conditions selection should favour the reduced energy requirements of smaller individuals. Although the details of the Pleistocene palaeoenvironments on Flores are still being documented, it is clear that until the arrival of mesolithic humans, the faunal suit was relatively impoverished, and the only large predators were the Komodo dragon and another large varanid. Dwarfing in LB1 may have been the end product of selection for small body size in a low calorific environment, either after isolation on Flores, or another insular environment in southeastern Asia."

The problem with the Darwinian explanation of insular dwarfing is that it mostly relies on a good imagination. Evidence of stunting and selection pressures is lacking. Furthermore, dwarfing seems to be a one-way process and pygmy forms are considered to be in a state of stasis for thousands of years. Why is it that variability should be so constrained? In a situation like this, other causes of the phenomenon should be investigated and there should be a process of testing multiple hypotheses.

Mammalian faunas in North America are known to change at the Paleocene-Eocene transition. Gingerich (2003) has considered the rich fossil record and highlighted a phase of transient dwarfing. The reductions in size were, in these cases, not linked to restricted food supply on islands. Gingerich considers that this is a clear case of mammalian



The skull of *Homo floresiensis* (the LB1 specimen) with the brain endocast superimposed. The frontal lobe and the temporal lobes at the sides and at the back of the brain are not those of a microcephalic. These features are most closely related to *Homo erectus*. *© Kirk Smith, Mallinckrodt Institute of Radiology. Used with permission.*

responses to climatic change: "Elevated temperature and elevated CO_2 are both possible forcing factors" (p.471). Here is a hypothesis regarding dwarfing that is not linked to selection pressures acting on mammals experiencing constraints on food supply.

Stuart (1998) has documented evidence for a global iodine deficiency which adversely affects many different animals. He provides evidence that the world now hovers on the edge of deficiency and suggests that the Flood removed iodine from the environment. The most serious disorder in humans is cretinism, but the same cause can also lead to dwarfing.

It should also be noted that, whereas evolutionary theory supplies the paradigm (or conceptual framework) for most published studies dealing with life's origins, other paradigms can be identified. Those Christians who understand the early chapters of Genesis to be history have been exploring issues relating to biological and geological science. Based on the way different 'kinds' were created and later preserved on the Ark, it can be concluded that there are major implications. There is a growing literature base on Basic Type biology and the closely related Baraminology. Although most Basic Type research has concerned living organisms, attention has been given to fossil hominids by Hartwig-Scherer (1998). This article covers much ground – the Cercopithecinae, the Hylobatidae, the Ponginae, the Gorillinae and the Homininae as extant Basic Types and the Australopithecines as an extinct Basic Type. The various fossil hominids are discussed within the Basic Type conceptual framework. This approach informed an overview of fossil man by Tyler (2000). Basically, within the human Basic Type can be located the various *Homo* species, including *Homo erectus*, *Homo sapiens neanderthalensis* and *Homo sapiens*. Whether *Homo floresiensis* is descended from *Homo erectus* or from *Homo sapiens*, its status is still that of a member of the Homininae. All of the members are united by common ancestry to Adam and Eve.

The phenomenon of dwarfing (whether insular or not) deserves much more attention by creation-oriented biologists. In addition to the issues raised above, there are many indications of rapid diversification of many Basic Types post-Flood. One of these was discussed in some detail by Garner (1998): the fossil record of horses. The mechanisms responsible for such changes are under investigation, and it would be very surprising if they were not also relevant to dwarfing.

Man is made in the image of God – but which 'Man'?

The Flores 'hobbits' have stimulated questions about how we as people perceive ourselves. Perhaps we are not so unique? Is our sense that humans are 'special' justified? Two examples are reproduced below.

Henry Gee (2004) expressed the question succinctly when he wrote:

> "If it turns out that the diversity of human beings was always high, remained high until very recently and might not be entirely extinguished, we are entitled to question the security of some of our deepest beliefs. Will the real image of God please stand up?"

Desmond Morris (2004) expressed the view that religious people will be theologically challenged by the new discoveries:

> "His very existence among us would make us question all over again what it is to be human. We are not used to this because our ancestors successfully killed off all our close relatives. This has created a chasm between us and the other animals, a chasm so big that religion went as far as to say that we are not even related to them. Humans have souls and they do not. Darwin put a stop to this nonsense with his theory of evolution, but amazingly the blindingly obvious truth he discovered is still resisted by large sections of the human population. They stubbornly continue to insist that we are some kind of special creation. The arrival of 'Mini-Man' is going to give them nightmares. […] In theory, the existence of Mini-Man should destroy religion, but I can already hear the fanatics claiming that he has been put on earth by the Devil simply to test our faith."

Various interpretations have been advanced by creationists: Mini-Man is an extinct human pygmy race, an australopithecine species, or humans afflicted with secondary microcephaly. But what if *H. floresiensis* is *H. erectus* affected by insular dwarfism? This happens to be my own view, although I am open to revising it if it can be falsified. What are the implications? Can the questions of Gee and Morris be answered if this understanding is correct?

History shows that people often put the boundary between 'Man' and 'not-Man' in the wrong place. Darwin allowed himself to entertain views that today would be regarded as racist. Hitler and the Nazi leaders were prepared to exterminate some racial groups in the interests of favouring the Aryan race. In the 19th century, the Tasmanians were treated worse than animals because they were excluded by the line of humanity that was drawn by white settlers. The quotations above (by Gee and Morris) presuppose that the line must be drawn between *Homo sapiens* and all other *Homo* species. However, what is the rationale for doing this? If all *Homo* species are human, as indicated by Basic Type biology, then we need to embrace them all as descendants of our first parents. The cultural traits of *H. sapiens neanderthalensis*, *H. erectus* and *H. floresiensis* are sufficient indication that here are humans living under pressure in a world that was still recovering from the destruction of the Flood. This is a major difference between creationists and theistic evolutionists, as the latter tend to draw the line between Old and New Stone Age Man. Many theistic evolutionists accept only Neolithic Man as descendants of Adam, leaving great question marks over the human cultural traits of Old Stone Age Man. The key to answering hard questions is to make sure our thinking is rooted in biblical revelation. If the foundations are solid, then we can be confident that satisfying answers will emerge.

> "The Flores 'hobbits' have stimulated questions about how we as people perceive ourselves."

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The Grand Canyon Adventure – Part Two

Paul Garner

Wednesday 5th May

Third day on river begins with more sample collecting – Bright Angel Shale this time. Soon we leave Marble Canyon and enter the Grand Canyon proper. The canyon just opens out around us into some incredible vistas.

We approach the place where the Little Colorado River joins the main Colorado River. Rafts are 'parked' and we walk down the ledge next to the Little Colorado. It's our first swim stop! Water in Little Colorado is lovely turquoise colour – and it's warmer than the main river. We have enormous fun floating in our lifejackets downstream back towards the rafts.

Our next stop affords us a close look at the Great Unconformity – representing the most noteworthy time break in the Grand Canyon geological sequence. Steve puts his thumb on the Nankoweap Formation (Precambrian) and his little finger on the Tapeats Sandstone (Cambrian). Does his hand really span 500 million years of missing time? If so, why is evidence of chemical weathering so difficult to find? Could this erosion surface have been carved rapidly by catastrophic agents?

By lunchtime we make camp at Carbon Creek – and some of us prepare for an afternoon hike into the back country. We all get thoroughly soaked in the river to cool us down before we set off. We hike into Lava Chuar Canyon. In the hillside above us there is a black cliff of Cardenas Basalt – a thick series of lava flows – sitting on top the rich red Dox Sandstone. We also see lovely exposures of the Kwagunt and Galeros Formations – tilted Precambrian sediments of the Chuar Group – beneath the Great Unconformity.

Our journey back to camp takes us through Carbon Canyon – where the Tapeats Sandstone is dramatically folded into a vertical orientation. The twisted rock layers are a sobering reminder of the tremendous tectonic forces that were active in the earth's past.

Thursday 6th May

Next morning we're on the river again – the canyon is really wide at this point. The north and south rims seem a long way away. Around us we see some grand exposures of the Cardenas Basalt, which has been the focus of much radioisotope dating work by ICR geologists (see inset box 5).

We stop at an Anasazi Indian site near Unkar Creek where we see pottery shards. These people were among the first to discover and explore the canyon, and many made settlements within the canyon itself. How did they survive in this harsh environment without all the modern comforts? It must have been a precarious existence.

INSET BOX 5: RADIOISOTOPE DATING OF THE CARDENAS BASALT

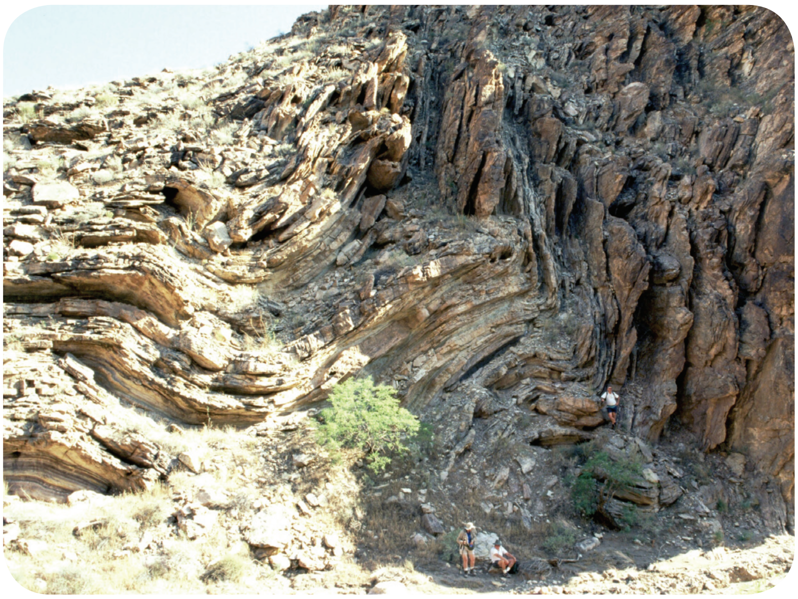
Radioisotope dating is actually not one method – it is a set of methods – but they all work on similar principles. They depend on the fact that some elements are radioactive. This means that they are unstable and spontaneously decay into another element by emitting a charged particle. The original radioactive element is called the 'parent' and the new element that is formed is called the 'daughter'. The decay process continues until a stable, non-radioactive element is formed.

This decay process is used to estimate the age of rocks. If we can determine the rate at which 'parent' decays into 'daughter', and measure the amounts of 'parent' and 'daughter' in a rock or mineral sample today, we can work out its age (i.e. the time since it was last melted and set to 'zero'). Radioisotope dating appears to be very powerful and usually gives ages of millions or billions of years for rock and mineral samples.

However, recent work by ICR geologists casts doubt on the standard interpretations of radioisotope dates. Take the Cardenas Basalt, for instance. In 1998, creation geologists Steve Austin and Andrew Snelling published these dates for the Cardenas Basalt:

- 516 ± 30 million years (K-Ar whole-rock isochron)
- 1090 ± 30 million years (Rb-Sr whole-rock isochron)
- 1700 ± 16 million years (Sm-Nd whole-rock isochron)

This example confirms once again that different methods typically give different ages for the same rock or mineral sample. The ICR team strongly suspects that radioisotope decay rates were higher in the earth's past and that, as a consequence, radioisotope dates greatly *overestimate* the true age of rocks. This hypothesis is helping to explain the systematic patterns of discordance observed between radioisotope dates.



Tight folding in the Tapeats Sandstone in Carbon Creek.

Next we hike into 75 Mile Canyon to see the Shinumo Quartzite – a Precambrian sandstone formation. It averages 1,200 feet thick and is a dominant cliff-forming unit in this part of the canyon. The thick beds and contorted bedding testify to rapid deposition and catastrophic earthquakes at the time it was laid down. In the shade of the towering cliffs, we are led in a communion service – an emotional experience for some.

We make camp at Red Canyon near Hance Rapids – opposite a fantastic exposure of an igneous intrusion (a dolerite dyke) cutting through the Hakatai Shale. We relax in camp and I cool my feet off in the river. Tonight is barbeque night! We have a great spread prepared for us – it's no wonder that the ICR staff refer to the raft trips as 'float and bloat'! We even have guests when some hikers from another party are invited to join us for the meal.

Friday 7th May

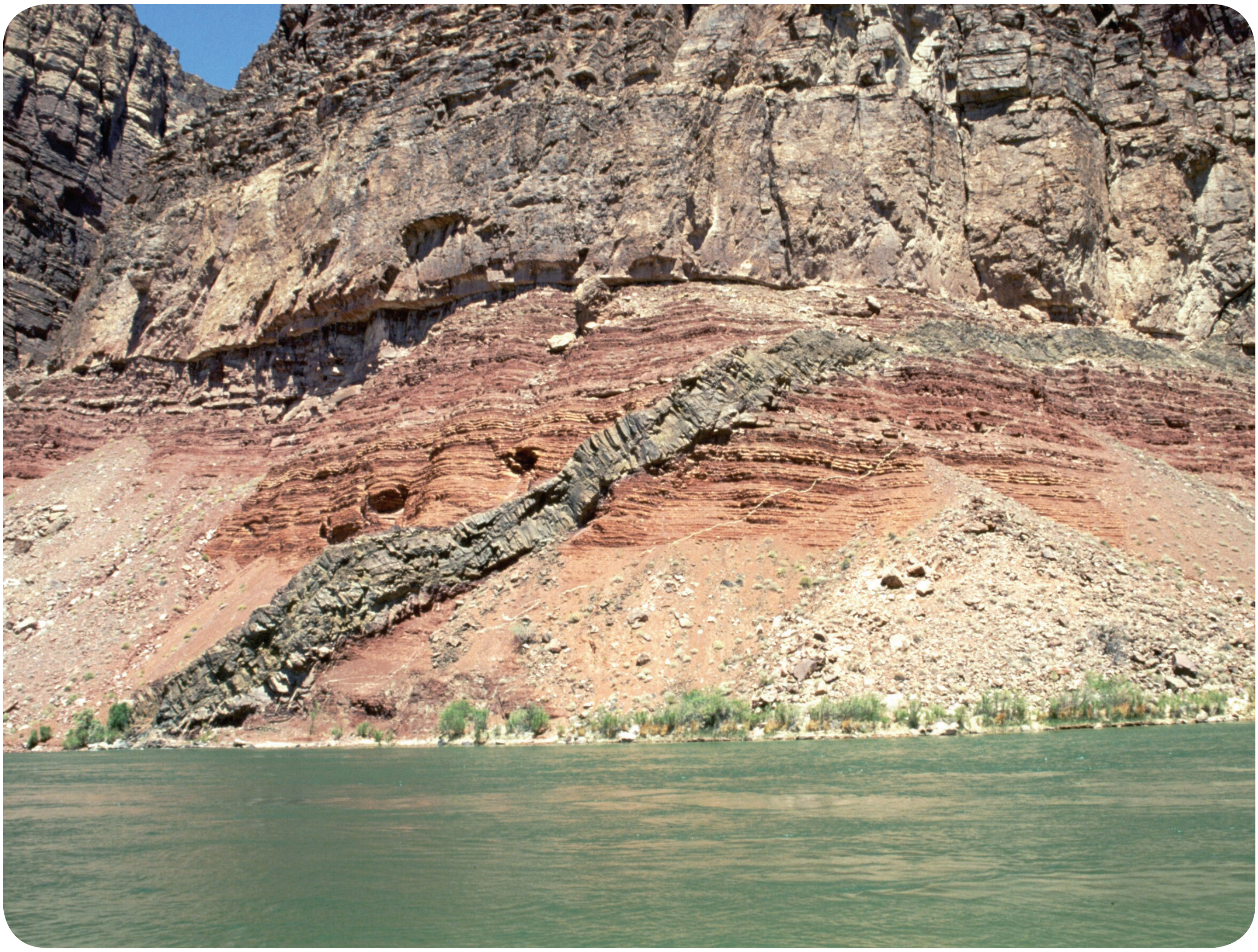
Our last full day on the river – can our journey almost be over? We gather for a group photo – but it takes a while because everyone wants that snap!

Almost immediately upon leaving camp, we negotiate Hance Rapids. We've become used to getting soaked in the rapids by now! We don't stay wet for long though – it only takes a few minutes to dry out under that baking sun.

We make our way down river and soon the dark walls of the Inner Gorge – metamorphosed schists and granites – press in around us. It's no wonder that John Wesley Powell referred to the Inner Gorge as "these grand gloomy depths".

At Clear Creek we pull up by an outcrop of amphibolites – 'pressure-cooked' basalt lavas. We leave the rafts and hike through a narrow side canyon until we reach a small waterfall. We have lots of fun messing about in the water before heading back to the rafts and floating on to Cremation Creek. Here we set up camp.

Cremation Creek is only a mile or so from Phantom Ranch – a little oasis of civilization in the wilderness at the bottom of the canyon! While some elect to stay at camp, most of us take the opportunity of an afternoon raft trip to the ranch. Phantom Ranch offers dormitories and cabins for hikers, though reservations must be made well in advance. However, the attractions for our group were the ice-chilled drinks in the restaurant and the first proper toilet



Dolerite dyke at Hance Rapids.

The south rim looks deceptively near.

facilities in five days! We also had the opportunity to make telephone calls and to mail postcards – delivered to the rim by mule.

Looking up at the far-away south rim as we headed back to the rafts, the next day's hike out began to seem a daunting prospect.

Saturday 8th May

We make an early start – we want to be some way up the trail before the sun gets too high overhead. We board the rafts and set out for Pipe Creek where we will be able to join the Bright Angel Trail.

At Pipe Creek we say our goodbyes to Andrew Snelling and two of our fellow rafters – who are staying on for the second leg of the trip. Another set of rafters will be hiking down the Bright Angel Trail today to begin *their* adventure! We also bid farewell to Tom Vail and the raft crew. Then we hit the trail.

The first part of our hike is mainly in the shade, as the trail zigzags away from the river. We ascend through the Vishnu Schist in a series of switchbacks called the Devil's Corkscrew. A mule train passes us on its way down to Phantom Ranch – are these the mules that will carry my postcards out of the canyon?

Each of us travels at our own pace – but most of us have some companions as we journey on. By the time we reach Indian Gardens we're hungry and ready for something to eat. We've brought sandwiches with us and piped water is available here. We refill our water bottles. Refreshed, we are soon on our way again.

Beyond Indian Gardens, the trail levels out somewhat – we're walking across the Bright Angel Shale which forms a wide bench called the Tonto Platform, about one-third of the way up the trail.

Soon we come across some harder layers – the Muav and Redwall Limestone. The trail steepens and there are seemingly endless zigzags in the trail to negotiate. When we reach Three-Mile Resthouse we are glad to have another break! The squirrels come begging for food – but the visitor signs urge us not to feed them. We rest briefly, and look back along the trail into the inner canyon. We've come a long way from the river – but the rim is still a long way above us…

Every now and then we stop for a rest along the trail and enjoy the beautiful views. As we near the base of the Coconino Sandstone we come across a rescue helicopter lifting off from a ledge with an injured person. Apparently this person has broken their collar bone in a fall. It reminds us that even hiking the trails can be hazardous without great care.

Alongside the trail we see spectacular exposures of the boundary between the cream-coloured Coconino Sandstone and the red Hermit Shale beneath. In conventional terms, more than 10 million years must have passed between the laying down of these two formations – but the boundary is an extraordinarily flat surface. It seems difficult to make a case for such a huge amount of missing time.

Looking at the Coconino Sandstone also reminds us of how extensive these sedimentary layers are. The Coconino Sandstone covers large parts of Arizona, New Mexico, Texas, Oklahoma, Kansas, and Colorado – an area of about 200,000 square miles!

The sand grains seem to have come from a distant source to the north. This seems unlike the kind of erosion, transport, and sedimentation we see today. We are left wondering whether the principle of uniformity – 'the present is the key to the past' – is really valid.

The final section of the trail is the hardest of all. We are already tired and stepping over the logs that have been placed across the trail to stabilize it takes considerable effort! There are also lots of long zigzags and, at times, it seems that the rim will stay forever out of reach. As we near the rim we can see the tiny figures of people on the observation platforms – how easy it is to misjudge distances in the canyon!

Soon, we are in sight of the rim and, summoning up our remaining reserves of energy, we make it to Bright Angel Lodge. There we relax, buy drinks and ice-creams, and make telephone calls home to say that we've made it!

We leave the canyon later than expected – and we wonder whether we'll reach the hotel at Flagstaff in time for the Victory Dinner. In fact, we reach the hotel with just enough time to get showered and changed! As I step off the bus, I get a surprise when I'm greeted by Andy and Juliet McIntosh! Andy has been working in the USA and he and Juliet are able to join us for tonight's dinner.

We all have a good time at the dinner – followed by an after-dinner talk by Steve Austin entitled 'How to talk to anyone about creation'. There are also skits and songs by the various tour groups. But we are all so exhausted that it is nice to finally climb into bed!

Sunday 9th May

We have breakfast at Northern Arizona University followed by a worship service. Frank Sherwin gives the message in his own inimitable style! Then it's back on board the tour buses as we journey through Oak Creek Canyon to Sedona.

We have a lunch break in Sedona but it's soon time for the final leg of the trip back to Phoenix. There are many hugs, handshakes, and exchanges of contact details as folk are dropped off at the airport and hotel. I'm well looked after by Jim and Joyce Sivley – who live in Phoenix – until it's time for me to catch my plane. Kindly they take me out for a meal before my flight.

And then it's the long haul home – via Chicago, Washington, and Heathrow. I'm tired, exhausted in fact, but very privileged to have had this Grand Canyon experience. I take the time to reflect on the trip. It's been thoroughly enjoyable – from the warm fellowship to the magnificence of the canyon itself. And Steve Austin and Andrew Snelling worked so hard – willingly making themselves available to answer questions and share their knowledge, and also giving us some memorable devotions and insights from the Scriptures. And seeing the canyon first-hand undoubtedly beats any amount of reading about it! The ICR folk were right – it *has* been a real adventure!

Paul Garner – back on the south rim at Bright Angel Lodge.

INSET BOX 6: RECOMMENDED RESOURCES

WEB SITES

Institute for Creation Research
http://www.icr.org

Arizona River Runners
http://www.arizonariverrunners.com

Canyon Ministries
http://www.canyonministries.com

BOOKS

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VIDEOS

Grand Canyon: Monument to Catastrophe. Institute for Creation Research.

Grand Canyon Catastrophe. Keziah Films.

World War II...and an unfinished battle

Sheena Tyler

"The Jews are less fit. Let's help natural selection along". So wrote Adolf Hitler in his autobiography, *Mein Kampf*. Darwinian theory gave an apparent scientific credibility to the idea Hitler supported of the 'Aryan' master-race. This fuelled the all-conquering quest for the Germans' racial domination that culminated in the Second World War, a gruesome conflict that left almost 50 million people dead. The 60th anniversary of the end of the War is commemorated this August. From last year the nation has marked numerous War anniversary events. The national press ran long contemplative editorial pieces, historians gave in-depth analyses, and documentaries dissected the rise of Nazism and the sociological backdrop. But the ideological roots of the War rarely surfaced.

The ideological roots

It is obvious from the quote above that Hitler was applying Darwinian theory to social ideas. But is this

> Continued on page 18

The Second World War was a theatre for the consequences of Darwinism. The theory of evolution underpins today's moral ills …

… So, origins issues are centre-stage in an effective Christian response

Buckingham Palace this summer, projecting the image of its balcony on VE Day 60 years ago. *© The Daily Telegraph. Used with permission.*

In Britain's darkest hours, King George VI called the people to National Days of Prayer. *The Royal Archives © 2005 HM Queen Elizabeth II. Used with permission.*

an illogical extremism, from which Darwin would have distanced himself. In *The Descent of Man* (Darwin, 1871) we see the beginnings of social Darwinism. Firstly, Darwin viewed races such as negroes and aborigines to be forms intermediate between humans and apes, and endowed with intellectual and moral characteristics inferior to Europeans. Secondly, he remarked that "if we do not prevent the...inferior members of our society from increasing at a quicker pace than the better class of men, the nation will retrograde..." Referring to the need to take human evolution into our own hands, he added, "All do good service who aid towards this end".

Ernst Haeckel developed these ideas much further. A contemporary of Darwin, German University professor of zoology Haeckel lamented, "What good does it do to humanity to maintain artificially and rear the thousands of cripples, deaf-mutes, idiots, etc., who are born every year with an hereditary burden of incurable disease?" He advocated too the active "indiscriminate destruction of all incorrigible criminals", and advocated involuntary euthanasia for "the hundreds of thousands of incurables – lunatics, lepers, people with cancer, etc". Turning conventional morality on its head, he even castigated the Christian view that forbids such weeding-out as being a pious morality which is "really the deepest immorality" (Haeckel, translated by Lankester, 1901). Darwin and Haeckel were in correspondence throughout their lives, and were in mutual admiration, citing one another regularly. If Darwin pulled back from the full consequences of social Darwinism, he did nothing to publicly bridle his keen disciple.

Haeckel's ideas were hugely popular throughout Germany, and his authority as an eminent zoologist (founded partly on fraudulent drawings deceitfully suggestive of a common ancestry of vertebrate embryos, reviewed by Wells, 2000) added weight to their reception. According to Wiker (2002) Haeckel's "eugenics arguments made for the seamless acceptance of the Nazi eugenic program". Lifton (1986) comments that Haeckel was a constantly cited authority for the Archive of Racial and Social Biology, published from 1904 until 1944, which "became a chief organ for the dissemination of eugenics ideas". Gasman (1971) adds "Hitler's views...coincide for the most part with those of Haeckel and are more than occasionally expressed in very much the same language".

Haeckel's arguments supporting involuntary euthanasia were reiterated in the tract by Binding and Hoche undergirding the Nazi euthanasia programme which disposed of around one quarter of a million mentally and physically disabled, and later even children who were unfortunate to be orphans or delinquents, or merely suffered with acne (Burleigh, 1994). According to Gallagher (1995), these victims were not killed by the SS but by a "vast and complex network of very ordinary doctors and nurses, filling out minutely detailed forms in triplicate, generally doing their best to treat patients to be euthanazed with the utmost concern and gentleness…an immense bureaucracy of careful compassion."

Moral Darwinism of the kind espoused by Haeckel was thus pervasive in Nazi Germany, and not only

Hitler but the majority of the military leaders subscribed to it. They were quick to slither down the slippery slope. The all-conquering 'master race', seeing it as their moral duty to eliminate the less fit, rapidly descended into acts of extreme cruelty by the SS, the Gestapo and even the rank and file Wehrmacht (German army) in its treatment of captives during military campaigns. The SS, for example, shot all the allied prisoners that they took in their advance on the Dunkirk evacuation; Russian civilians in over 600 villages were annihilated *en masse*; and six million Jews were exterminated.

The Max Planck Society in Germany, in a refreshing scrutiny of Germany's past, conducted investigations revealing that the most criminal Nazi research was not pseudo-science but followed conventional methodology, and many scientists collaborated voluntarily to advance their research aspirations. The behaviour of such scientists "serves as a timely reminder of the need for strict ethical limits to be defined, and adhered to" (Anon, 2005).

And what of Japan? According to Griffiths (1971), "the person really responsible for the Pacific War was Charles Darwin!" His doctrine of survival of the fittest was music to the ears of a nation already immersed in a sense of superiority driven by Shintoism and an emperor descended from its sun-god.

God's intervention

History has been secularised, but it was not so 60 years ago, when the media widely acknowledged a divine intervention to deliver the world from these forces of evil. Only in eternity will we discover the part played by unseen ordinary men and women, some showing extraordinary courage at the cost of their lives (for example, resistance workers), others fervently interceding. But some played a more visible part. At the retreat of our army to Dunkirk, the subsequent threat of invasion and the Battle of Britain, El Alamein and D-Day, King George VI exhibited a profound spiritual insight, and presence of mind. On each occasion this led to him calling the people to prayer. The nation's response was wholehearted. And God's answers were swift…

At the moment when the Germans were about to over-run the British army at Dunkirk, Hitler strangely decided to halt the advance of his armoured columns. A great storm broke out over Flanders, grounding the Luftwaffe based there. Consequently the British army were able to retreat to Dunkirk under cover of the storm. In contrast, the English Channel became as calm as a mill pond, enabling a vast armada of every kind of boat to ferry the army back to safety on English shores. 335,000 men were rescued.

The whole might of the German army and navy were now amassed on the shores of France, poised for the invasion of Britain. By 30th August 1940 the situation became very grim, as the Luftwaffe struck successfully at the very heart of Fighter Command, with 466 of our fighter planes lost or damaged, 300 pilots lost and few to replace them.

An answer to prayer… to drive Rommel out of Africa, troops in 650 ships crossed the entire Atlantic – in the then biggest amphibious assault in history – completely undetected. This photo shows part of such a convoy. *© Imperial War Museum (Image C3225). Used with permission.*

Meanwhile, over 2000 enemy invasion barges and other sea-craft were mustering along the French coast. George VI ordered another National Day of Prayer on September 7th. Once more the nation was on its knees. The consequences? On Sunday 15th September over 1000 Luftwaffe aircraft struck, with each bomber protected by up to five fighters. As the Hurricanes and Spitfires went in to battle, the German bombers started to jettison their bombs and head for home, sometimes even before engaging in battle. It was as if an invisible hand was turning them back. Meanwhile, the sea was a raging torrent, hindering the orchestration of Hitler's armada. Rough seas persisted. Hitler abandoned his invasion.

The Battle of Alamein was of strategic importance, with the Germans poised to break through to the Persian Gulf for its oil, and then on to south Asia to link up with the Japanese axis forces. King George VI, realising this, called for yet another National Day of Prayer, on September 3rd 1942. The results were astounding. The German intelligence failed to detect a huge build-up of 900 British tanks and was completely off its guard when the British bombardment commenced. Rommel and his chief of staff were away in Germany on leave. His deputy died of a heart attack in battle. And Rommel's supplies failed. Often his tanks were stationary sitting ducks, empty of petrol. Rommel was into retreat.

The allies now needed another army behind Rommel to drive him out of Africa. The troops were brought in 650 ships which remained completely undetected by enemy patrols in the entire North Atlantic crossing, on their arrival in North Africa and passing through the Straits of Gibraltar. At their landing point a surf of over 15 feet made it impossible, but at that point the wind turned offshore and now they could land. Within six months, the axis forces in North Africa had fallen. A huge armada of allied ships then approached Sicily, the prelude to a counter-attack into Southern Europe. A prayerful spirit prevailed on the ships as they approached Sicily on a stormy night in force 6 conditions. Again landing would be impossible. Meanwhile enemy garrisons on Sicily, alert for weeks, relaxed their vigilance in the atrocious conditions…

Suddenly, timing with God's perfection, it became calm and the landings began. On the eve of D-day, George VI broadcast to the nation, "I solemnly call my people to prayer and to dedication…We should ask not that God may do our will, but that we may be enabled to do the will of God. Surely not one of us is too busy to play our part in a nationwide, perchance a world-wide, vigil of prayer…"

Britain's General Montgomery added, "A special gallantry is required of our soldiers. If necessary, we have got to hazard all, and give our lives, that others may enjoy it. From a consecrated nation such men will come, and 'the Lord, mighty in battle' will go forth with our armies and His special providence will assist our battle." America's General Eisenhower, the supreme commander for these forces, commented, "If there was nothing else in my life to prove the existence of God, the events [on the eve of D-day] did it". Eisenhower prayerfully decided to postpone the invasion for 24 hours, a momentous decision. The Germans' Meteorological Office meanwhile ruled that an invasion was impossible in such conditions. Many German troops were without officers, and enemy coastal units were having exercises elsewhere. And the Germans were bluffed into believing that an invasion was likely elsewhere.

The next day came a brief, favourable break in the weather conditions as the armada sailed forth. Moreover, this was the only day that U-boats did not patrol the channel. Over 400 ships and 11,000 planes crossed totally undetected. Even on the landings, the German High Command initially refused to accept the reality of the invasion, so effective had the bluffing been.

David Gardner concluded that "the whole of the Second World War is a story of one mighty deliverance or intervention of God after another". Gardner's book is an astute documentation of these events. He cites Air Chief Marshal Sir Hugh Dowding commenting on the Battle of Britain, "I pay homage to those gallant boys who gave their all that our nation might live. But…I can trace the Intervention of God, not only in the Battle of Britain, but the events that led up to it [a reference to the providential timing of the development of radar, which Dowding accelerated]; and had it not been for this Intervention, the battle would have been joined in conditions which, humanly speaking, would have rendered victory impossible" (Dowding, 1942).

The battles of the 21st century

What can we say in reflection 60 years on? Firstly, although Nazism and Japanese military imperialism was overthrown, and the world recoiled from the atrocities committed in the name of moral Darwinism, that moral Darwinism is still with us. A silent holocaust far exceeding that of World War II goes on unnoticed in the hospitals and laboratories of the world every day – in euthanasia, the destruction of the unborn, and in reproductive technologies. Having been saved from such imperialism we have fallen prey to the evolutionary philosophies that undergirded it! Because mankind failed to engage in battle with these roots of the War, this is an enemy as yet unassailed, and surely must have yet further roots in the realm of the spiritual forces of darkness. There is still much for us to overcome in the struggles of the 21st century.

Moral Darwinism is in direct conflict with the doctrine of Creation, which values every human irrespective of race or gestational age, because we are made in God's image. The ultimate root of moral Darwinism is Darwinism itself. Is Darwinism science? Darwin's whole edifice was built on the gigantic extrapolation of a little data – such as artificial breeding in pigeons – to explain the whole of the origin of life's forms. With no data to support this Herculean leap, Darwin's dream was nothing but an exercise of faith in the blind forces of nature. Such views emerged from the seedbed of pagan, materialistic Greek philosophies, especially those of Epicurus, Aristotle, and Lucretius. Revived in the Renaissance and re-clothed by anti-God philosophers in the 16th and 17th centuries, evolution was already in vogue by Darwin's day. Darwin embraced the same unproven materialistic assumptions as his Greek forebears (Wiker, 2002). His leap into moral Darwinism – taking human evolution into our own hands – is part of the same tree which needs to be uprooted, a tree rooted in the soil of unbelief rather than empirical data, which sprouted not in the days of legalising abortion in the 1960s, but in the 1860s.

Secondly, totalitarian regimes – of whatever kind – breed tyranny. The world is blind to the fact that man's heart is "deceitful above all things", and is curiously surprised when tin-pot dictators arise and bring disaster on their people. The democratic world needs to limit the power of men in high authority. Any over-powerful office is liable to corruption.

Thirdly, in peacetime people can hide from the consequences of godlessness. In War they are more vulnerable. When the King called Britain to prayer, they didn't mock but got on their knees. God was doing something – not just ordering the events of human history but meeting with individuals in a personal way, engaging with their hearts. Just like 60 years ago, that's exactly what our nation needs today.

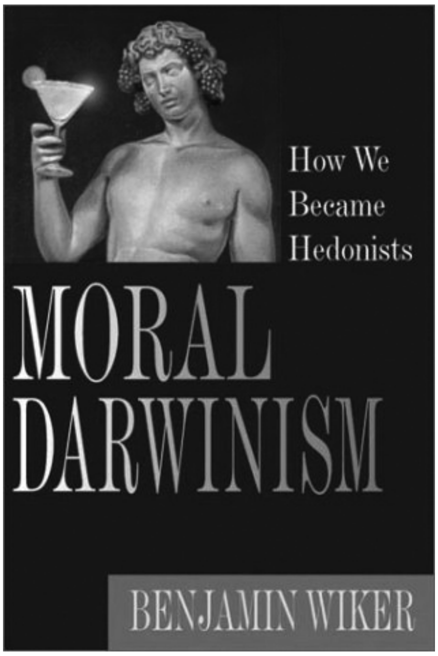
What should Christians do?

There is certainly growing apprehension in the Church about our society, with euthanasia the single biggest issue of concern in a straw poll I conducted recently. The Mental Capacity Bill is now Law. The demographic trend will result in a huge proportion of elderly, throughout Europe. The pressures to eliminate the more burdensome are sure to increase. What happens only covertly in most countries (this country included: Shipman has not been alone in heavy-handedness with the morphine), once state-sanctioned, becomes the next mass slaughter. We ignore these signs at our peril. Our loved ones may be the next victims. We would be wise not to wait until we are helplessly immersed in the event.

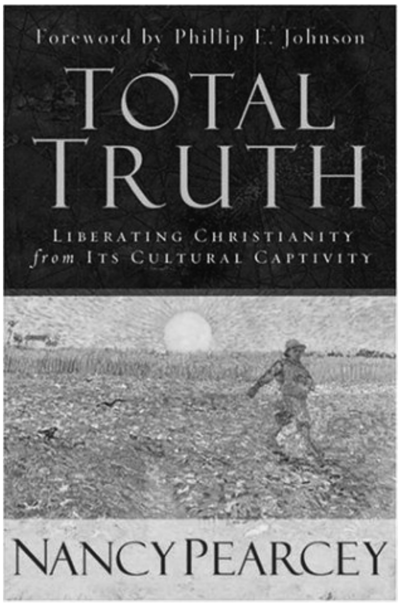
But there is a big obstacle to Christian progress against this and other evils. How often have we heard "It's true for you, but not for me", or, as MP David Heyes remarked recently when asked his views on life issues, "these are deeply personal issues which should be kept out of the public arena". In other words, public and private are two domains which we should keep separate. This is frustrating for the Christian to hear – the Government makes the law, does it not? How can it keep the so-called private area of religion out of the public domains of society on which they legislate?

So, the problem is the compartmentalisation of knowledge. This can be traced back yet again to pagan ancient Greek ideas, but in its present form was first used substantially by Thomas Aquinas, who argued that the world of nature could be known separately from the world of the spirit (reviewed by Schaeffer, 1968; Hooykas, 1972; Jones, 1991; Tyler, 1997). The sacred could be separated from the secular in a two-storey, upper and lower view of reality, thus:

Sacred : Grace
Secular : Nature



MORAL DARWINISM Although Nazism and Japanese imperialism was overthrown, its Darwinian roots – and the moral evil it generated – were not, and are still with us today.


Foreword by Phillip E. Johnson
TOTAL TRUTH
LIBERATING CHRISTIANITY from ITS CULTURAL CAPTIVITY
NANCY PEARCEY

TOTAL TRUTH Religion is relegated today to the 'private', being irrelevant to public society. Nancy Pearcey helps us find the intellectual toolkit to demolish these and other unbiblical compartments. The book won the Christianity and Society 2005 ECPA Gold Medallion Award.

Science and other areas of society have in this way become autonomous, isolated from the Scriptures, leading to the myth that science promotes culturally-free, objective knowledge.

The two-storey model was developed further by Bacon, leading to the 'two books': the book of God and the book of nature, and the myth that nature is objective, value-free and the pathway to truth (reviewed by Tyler, 2003). Unfortunately, these tenets are adhered to by many Christians, including evangelicals (eg., Forster & Marston, 1999). Instead it allowed anti-god naturalistic philosophies into the lower storey.

Help is at hand: an intellectual toolkit

This myth of neutrality was exploded by Kuhn in 1962 in his *Structure of Scientific Revolutions*. He demonstrated that the worldview of the scientist is of central relevance to the theory he selects to interpret the evidence. Moreover, science progresses according to paradigms (conceptual frameworks). Only data fitting the paradigm is accepted and change is resisted, unless anomalies grow to shake the paradigm sufficiently to cause a paradigm shift.

This helpful philosophical toolkit has still not permeated the breadth of society, but it does assist the Christian in indicating, when engaging with people, the need to expose their paradigm base.

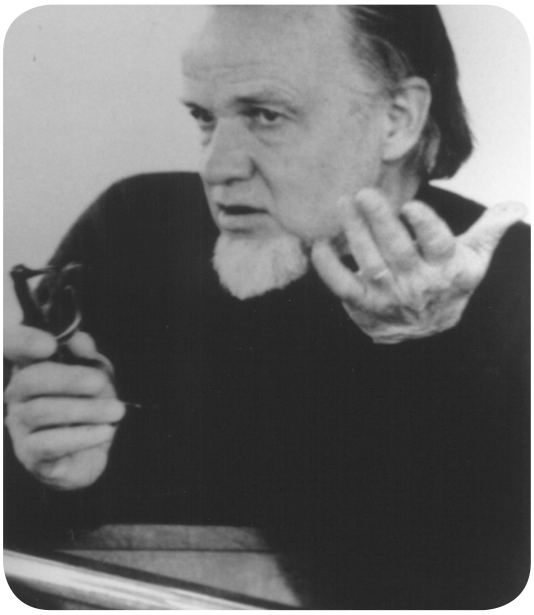
We can also attack directly the claim, "It's true for you, but not for me", by challenging their understanding of truth. Truth transcends the individual. Whether we believe it or not is irrelevant, if something is true. Our opponent is claiming that it is not true objectively. Ethics and values are placed into a box that excludes such truth.

But the spiritual realm is relevant to objective truth. This is why the message of the Resurrection is so important. It is a fact of history, breaking through the barrier of private experience. The bonds of death could not hold Him. This is an enormous testimony of the authenticity of Christ's message. God's revelation has historical roots, raising it above the level of personal feelings to objective reality.

The two-storey compartments have created other problems. Christians end up living two separate worlds, with the world of work in the demoted lower storey, disengaged from the higher pursuits of the sacred.

The Gospel is not in the upper storey, but addresses all of life. Replacing this unbiblical sacred/secular split with an integrated, holistic worldview is liberating (Pearcey, 2002). Up to one-third of all American philosophy departments now consist of theists, mainly Christians. This is the result mainly of just one philosopher, Alvin Plantinga. Previously, Christian philosophers restricted their theism to their private lives. Plantinga single-handedly reversed the direction of an entire academic discipline, making it almost overnight academically respectable to argue for theism. Pearcey adds, "it is an astonishing example of what Christians can do when they obey the command to take every thought captive to obey Christ".

Another source of inspiration is David Larson, who single-handedly reformed medical opinion on the relationship between religion and health. The accepted dogma, derived from Freud, was that religion was harmful to mental health. But Larson's observation of the field research was just the opposite: subjects with religious beliefs cropped up in the healthy groups, not the sick ones! Religious belief was found to correlate with better mental health, and religious people have lower rates of depression, suicide, family instability, drug and alcohol abuse.



The moral slide in society rests on our view of origins, said Christian philosopher Francis Shaeffer. Schaeffer founded the L'Abri Fellowship study centres, now in their 50th year. *Courtesy of the Francis Schaeffer Institute, Covenant Theological Seminary. Used with permission.*

To this we could add the discoveries of great scientists such as Kepler, Newton, Boyle, Ray and Pasteur, all operating from a biblical paradigm which informed their quests.

But we need not feel that the task is only for the grand and intellectual greats. We all need the intellectual toolkit to dismantle the sacred/secular and public/private two-stories, if our message is to permeate the world. Pearcey reiterates the importance of the great Christian philosopher, Francis Schaeffer, founder of the L'Abri Fellowship, which celebrates the 50th anniversary of its foundation this year. Schaeffer showed how Christians have been ineffective in the public arena of issues such as bioethics, abortion, family values, standards in entertainment, etc., because we have failed to see the big picture connecting cultural dissolution. This is driven by a shift in worldview to one based on the blind forces of chance, i.e. naturalistic evolution. Or, as Pearcey comments, "Schaeffer saw that everything hangs on your view of Origins". So, origins is centre-stage for an effective Christian response to the moral challenges of society.

I am thankful that in those dark hours of the War, God was not in a box marked private. That same God who created the world, parted the Red Sea and rose from the dead acted…as it were rolling up His sleeves, getting right in there into the mud and grit of battle, rescuing the stranded soldier, turning back armies and planes and tanks.

But as I write, another court case ponders in debate the issues of euthanasia: even if a patient expressly wants food and water, should it be denied? To judge using the whimsical opinions of patient, relative or doctor (rather than on unchanging absolutes of Christian morality) is to slip into the lethal quicksand of relative morality. Like the amassing of invasion forces over 60 years ago, can you hear the rumblings of the next invasion of evil? Will these be the next killing fields?

My prayer is that the sacred/nature and private/public divides will be demolished, and the forces of evil generating them. "We destroy arguments and every proud obstacle to the knowledge of God" (2 Corinthians 10:5). Who does the destroying? We do – that's you and me. Nancy Pearcey gives us helpful signposts for the mission.

Sheena Tyler © 2005

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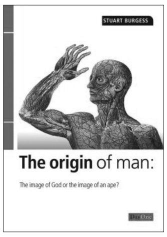
** Highly recommended relevant reading. All the works of Francis Shaeffer are recommended.*

Book reviews

The Origin of Man by Stuart Burgess. Day One Publications. 2004.
192 pp. Price £8.00. ISBN 1-903087-73-2.



Reviewed by David J. Tyler

During the 1980s, governments in developed economies became very worried about globalisation. They gave high priority to finding technology-based solutions for improving the competitiveness of manufacturing industry. This was to help prevent the loss of jobs to countries with lower labour costs. At the time, I followed with great interest various initiatives in the US, Europe and Japan, designed to transform the process of clothing manufacture. The plans made use of the latest ideas in Flexible Manufacturing Systems, robotics and vision systems. The US initiative was based at the Draper Lab, whose engineers had helped to put man on the moon. The EU effort involved large electronics, engineering, clothing and textile companies with a track record of success in several industrial sectors. The Japanese project was the most visionary, with the intention of using robotic systems for every task currently undertaken by skilled sewing machinists. The research programmes were large, each with government support of the order of £40 million, with at least an equivalent amount provided by industrial participants.

During that decade, my own research interests involved the characterisation of manual human skills and then making comparisons with robotic capabilities. It became obvious that industrial robots were operating at skill levels far below that exhibited by human sewing machinists. Consequently, it came as no surprise to me when the three technology-led initiatives (to bring advanced manufacturing systems into clothing production) all failed to achieve their goals. Despite the vast injections of public money, the automation projects were quickly forgotten and made almost no impact on subsequent developments.

I remember thinking at the time that even industry leaders were seriously underestimating the manual skills necessary for assembling clothing products. Humans have remarkable hands, a wonderful vision system and extraordinary coordination to achieve adaptive control. Wouldn't it be good to have a book that looked at human hands, or more generally, the human body, from an engineering design perspective? It struck me at the time that most people have little idea of how complex we are and how wonderfully we are made.

Happily, this book has now been written! It is *The Origin of Man* by Stuart Burgess, a design engineer. Chapter 3 deals with 'skilful hands' and other chapters consider our upright stature, fine skin, facial expressions, unique childhood, unique sexuality, unique genome, unique brain and man as a spiritual being. All this comprises Part 2: 'The Unique Design of Man'. This is a book that informs and edifies, and everything about our bodies is related to God's good purpose. Throughout, there are contrasts between the creationist and evolutionary worldviews, to show that the creationist perspective alone is able to do justice to the evidence of our own bodies.

Those who are familiar with the concept of 'irreducible complexity' (IC) will associate it with Michael Behe's argument in *Darwin's Black Box*. IC in molecular systems provides a very powerful argument to design. It takes a design engineer, however, to apply the same analytical approach to macroscopic systems – as Stuart Burgess does in Chapter 2 when discussing the human foot. On structural engineering grounds, there can be no gradualist route from an ape's foot (for grasping branches) to the human foot (for bipedal walking). Anyone who is interested in the ape-human evolutionary stories would do well to familiarise themselves with the reasoning presented in this important chapter.

The emphasis within Darwinism is that apparent 'design' is functional, for it must help to make organisms more fit. Burgess shows repeatedly that the design we see in the human body goes far beyond fitness for survival or passing on one's genes. The exquisite design we find in humans is to exercise the God-given dominion we have and to show by the things that we do that we are God's image-bearers.

Burgess does an excellent job of spelling out the differences between humans and apes. Some examples are as follows:

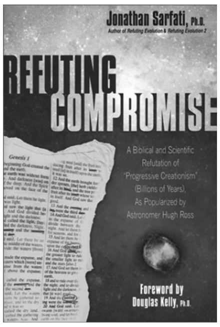
- Bipedalism affects not just the few bones associated with walking. The whole system of locomotion has to be involved (including field of view, the way the neck joins the skull, the articulation of the hips and the sense of balance);
- Skin. Our body hair, touch sensors and thermoregulation mechanisms are completely different for apes and man;
- Facial expressions. Gorillas have fewer facial muscles and none specifically for facial expressions like smiling. There are 12 pairs of facial muscles that are only found in humans, and all have to do with facial expressions and the communication of emotions. This is a fundamental part of our makeup (and for some of us – underused!)

Although the fossil data used as evidence for human evolution is discussed, Burgess makes the case for giving greater weight to the study of living humans and living apes. Every element of living creatures is available for analysis, whereas this is not true of the fossils. By adopting this approach we find that, as the book explains, "the differences between humans and living apes are so great that it is clear that humans did not evolve from any ape-like creature" (p.144).

Part 5 of the book, which contains the last two chapters, addresses the importance of origins. Burgess refers to two worldviews. These are the creationist and evolutionist belief systems that underpin two quite different approaches to life. Both are ultimately faith positions and both have a significant influence on the way we live. Contrasts are drawn for the two worldviews relating to morality and personal conduct, marriage, abortion, euthanasia, death and suffering, and eugenics. Finally, Burgess contrasts the ultimately pessimistic and nihilistic mindset emerging from the evolutionary view of man with the biblical view, which is that man is designed for eternity with God.

This is a good read for a broad range of readership and highly recommended.

Refuting Compromise by Jonathan Sarfati. Master Books, Green Forest, Arkansas. 2004. 411 pp. Price £7.00. ISBN 0-89051-411-9.


Jonathan Sarfati, Ph.D.
Author of Refuting Evolution & Refuting Evolution 2
REFUTING COMPROMISE
A Biblical and Scientific Refutation of "Progressive Creationism" (Billions of Years), As Popularized by Astronomer Hugh Ross
Genesis 1
Foreword by Douglas Kelly, Ph.D.

Reviewed by Andrew Cullen

For some while I have been searching for an all-purpose creationist textbook. This book is not quite there, but it does set a new standard in creationist literature. I would strongly recommend that every creationist should get a copy of this book and read it, and be prepared to give it away. Jonathan Sarfati writes clearly and concisely, with a gift for explaining complex ideas in terms accessible to a lay audience, and with a clear line of argument.

In fact, the book is not actually written as a 'creationist textbook', but as a refutation of the 'Progressive Creationism' popularised by Hugh Ross. That it can double as a more general creationist text is a credit to its author. The book's limited aim of rebutting Ross does not significantly restrict the book's usefulness, since Sarfati uses Ross's error as a starting point to explain the creationist position more fully. Primary focus on the day-age interpretation of Genesis 1 does not prevent Sarfati from giving very helpful analyses both of the gap theory and of the literary framework interpretation popular among British evangelicals.

Sarfati discusses both theological and scientific issues very thoroughly, yet concisely. On the theological side there are detailed chapters on the interpretation of the days in Genesis 1 (including explanation of the original Hebrew), on the origin of death and suffering, on the global flood and on the history of mankind, which set out a comprehensive biblical case for the creationist position. On the scientific side, his chapters on astronomy and on the created kinds are superb, explaining the last 20 years of creationist research in a way that is readily approachable even for those with little scientific background. There are also two chapters on geology: one excellent chapter putting the case for a young earth; the other slightly weaker, defending against old-earth arguments. These chapters, too, are very up-to-date, explaining the work of the RATE project – on radiometric dating, excess helium in rocks, and radiohaloes – as well as updating longer-standing creationist arguments about erosion rates, salt build-up in the sea and the decay of the earth's magnetic field.

I was also delighted to see the inclusion of a chapter on the history of the interpretation of Genesis 1-11 within Judaeo-Christian theology, from the Church Fathers, through the Reformers and up to the present day. Detailed study of this has long been needed within creationist writing, and I hope that Sarfati's contribution here will start a trend towards creationists engaging with church history to make a stronger case for creation. However, while this chapter of Sarfati's is a valuable contribution and accurate in detail, he falls into several fairly elementary traps as he draws conclusions from the historical material. To take one example, he places a great deal of weight on the fact that all the Church Fathers who give an age for the earth place it in the thousands. While this is true, and is a point worth noting, since it indicates that the Bible itself gives the impression that the earth is only thousands of years old, it is disingenuous to place so much emphasis on this point without noting that the Church Fathers were not asking the same questions of the Genesis text as we do. To our ears, if someone says that the earth is 6000 years old we take them to be a young-earther rather than an old-earther. To the commentators of the Patristic era, the main question they were asking was not whether the earth is old or young, but whether it is created or uncreated. They give the age of 6000 years because that is the only finite age on offer, not (necessarily) because they saw *that* date as being of critical importance to Christian doctrine. We cannot say, purely on the basis that Church Fathers date the earth to around 6000 years, what they would have concluded in a 21st century context about young- versus old-earth creationism. Therefore, while I warmly welcome Sarfati's contribution on this question, and commend it as a helpful overview of the subject, I hope that future work will be able to address the questions of church history even more carefully.

My other major disagreement with this book is with Sarfati's first chapter, called 'The Authority of Scripture'. While it is right and good that creationists should recognise Scripture as our foundational authority and challenge others to do the same, in this chapter Sarfati seems to be over-confident in his own ability to interpret Scripture objectively, while giving the impression that anyone who is not a convinced young-earth creationist must be adding in prejudices and so rejecting the authority of Scripture. If giving this book to someone who was not a convinced creationist, I would be inclined to tell them not to read this first chapter, for fear that they might (with good reason) put the book down and read no further. I think it is unhelpful to imply that one can only be a creationist if one is a Fundamentalist evangelical, which this chapter is in danger of doing. It is perfectly possible to be a creationist without being a literalist on Genesis (or even an infalliblist), and I think creationism and Christianity would be enriched if we played to this wider audience rather than to a narrow audience (most of whom tend to agree with us already).

Nevertheless, for the creationist reader, this chapter does contain many valuable insights that we should take to heart, not only about the authority of Scripture but also about the nature of science and how we should use it. I particularly appreciated his distinction between *operation science* and *origin science* (p. 64f), although he could have emphasised it more. Operation sciences, like physics, chemistry and biology (my examples), deal with repeatable events in the present; origin sciences, like geology, cosmology and evolutionary biology, deal with non-repeatable events in the past. If only scientists, theologians and Christians (creationists included) realised the extent of the difference between these two types of 'science' – in my view they are so different that it is quite wrong to refer generically to 'science' as encompassing both – the creation versus evolution controversy would be debated far more intelligently than it usually is. In a future edition of this book I think the philosophy of science deserves a chapter of its own.

I also highly commend chapter 7, 'The Created Kinds'. I find so many people who misunderstand the relation between natural selection, speciation and evolution, which is really very simple once understood, and clear explanation of this point is a powerful weapon against evolution. In this chapter Sarfati explains very simply what creationists mean by 'created kinds', showing why it is no embarrassment to the creationist that, say, lions, tigers and domestic cats are related (in fact it is almost essential to creationism), and explaining why accepting natural selection and speciation is not in the slightest a concession to 'macro-evolution' – Sarfati wisely avoids the misleading term 'micro-evolution', and explains how careless use of the term 'evolution' has led to the confusion that puts many creationists on the back foot when there is, in fact, no reason to be worried.

Chapter 5, 'The Big Bang and Astronomy', is an excellent introduction to cosmology for anyone. Those familiar with Russell Humphreys' *Starlight and Time* will be aware of much of the material, but Sarfati has reworked this in his own style, in the light of ten years' subsequent research, adding in observational support for a Humphreys-type cosmology (such as quantised redshifts) and problems with the Big Bang (such as the horizon problem, which gives Big Bang-ers the same light travel-time problem that they pose for creationists).

One slight weakness in Sarfati's scientific chapters is that he majors on one particular creationist model, rather than acknowledging and expounding the range of proposed models, potentially perpetuating the myth that 'creation science' is a uniform phenomenon, not like 'real science' which has multiple competing hypotheses. In the astronomy chapter, for example, it is clear that Sarfati prefers the Humphreys-type solution in cosmology, since he devotes only four lines to the leading alternative, decay in the speed of light. And in the discussion of geology (doubtless to the chagrin of leading BCS members!) he does not even mention the 'Recolonisation Model(s)' of the Flood, which place the Flood rocks low in the geological record, nor the Oard-Woodmorappe rejection of the geologic column, insisting instead on his own preferred Flood model, following Snelling and Austin, which places the end of the Flood high in the geological column.

Overall, though, this book is to be highly recommended. It is comprehensive in detail without being excessive in length. It covers all the major theological and scientific issues, and does so in a highly readable style. This book is an asset to any creationist library. Sarfati has set a new standard for creationist books, and I look forward in the future to seeing more volumes of such a high calibre.

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Single Issue Price

The price of a single issue is £3.00 plus postage

Origins 27 was a special issue with a price of £3.50 plus postage.

Origins 37/38 was a special issue with a price of £6.00 plus postage.

Credits and Acknowledgments

ISSN 0953-2773

Design by paul airy. fourninezero design (4-9-0 ltd). http://www.fourninezerodesign.co.uk

Printed by W&G Baird, Nottingham.

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